

Application No. 10/730,528

REMARKS

Claims 1 and 4-17, as amended, are pending herein, claims 2 and 3 having been canceled.

The invention addresses the problem that in an ultra low power environment, for example in the case of a pacemaker, it is desirable to switch off the digitizer portion of the circuit unless an input signal of interest is present in order to save power. The digitizer is switched on in response to an activation signal, in particular when the input signal exceeds a certain threshold.

The problem addressed by the invention is that the portion of the signal immediately preceding the activation event is lost. In accordance with the present invention as defined in the amended claims, groups of successive samples are stored in a sequential fashion in the storage elements. In response to the activation signal, the digitizer is switched on and the stored samples are sequentially applied to the digitizer with a delay relative to the incoming samples so that the first sample to reach the digitizer arrives at the sample-and-hold circuit before the activation signal occurred. This enables the portion of the input signal immediately preceding the activation signal to be captured as well as portions of the input signal after the activation signal. The independent claims have been amended to more clearly bring out this novel aspect of the invention, which is not taught in the prior art.

1. Claims 1-4, 8 and 9 were rejected under § 102(b) as anticipated by the Bernet et al. U.S. Patent No. 4,353,057.

Bernet addresses an entirely different problem than does the claimed invention and is therefore non-analogous art. Bernet bears a superficial resemblance to the invention in that he employs a group of sampling gates to which the input signal is cyclically applied; however the input signal is applied for an entirely different purpose, namely to permit the samples to be read out at a lower rate than the incoming rate. The present invention is not concerned with rate

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conversion, but rather with power savings and the ability to capture a signal immediately before the digitizer is switched into the operational mode.

Bernet clearly does not teach the use of a digitizer that has a power saving mode and which is switched into a reconstruction mode in response to an activation signal, and wherein the samples are fed into the digitizer with a delay so as to permit the digitizer to output samples that arrived before the trigger event.

For all the foregoing reasons, there is no disclosure or teaching in Bernet et al. of all elements of applicant's presently claimed invention, and Bernet is therefore not a proper grounds for rejection of applicant's claims under §102. Accordingly, reconsideration and withdrawal of the rejection under §102 is respectfully requested.

2. Claims 5-7 and 10-17 were rejected under § 103(a) as obvious over Bernet et al. in view of the Kleks U.S. Patent No. 5,606,320.

Kleks relates to a similar device to that of the present invention, and in particular is concerned with pacemakers. It discloses the inner workings of the digitizer portion of the digital-to-analog converter, namely the switched capacitor array that provides the binary weighting. Such circuitry would be included in the digitizer 15 of the invention. Significantly, Kleks employs a single sample-and-hold circuit 202 (see Figure 2) and would not therefore be able to digitize a signal arriving prior to a trigger event switching on the DAC 208. The prior art does not achieve this result either alone or in combination.

There is no disclosure of teaching in either Bernet et al. or Kleks which discloses or teaches anything which would have suggested applicant's presently claimed invention to one of ordinary skill in the art. Further, there is no disclosure or teaching in Bernet or Kleks which suggest the desirability of combining any portions thereof effectively to anticipate or suggest

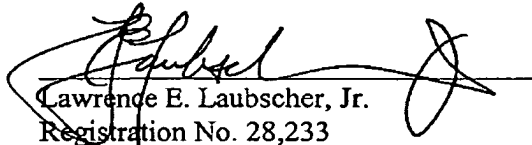
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applicant's presently claimed invention. Accordingly, reconsideration and withdrawal of the rejection under § 103(a) are respectfully requested.

Allowance of claims 1 and 4-17 is courteously solicited.

Respectfully submitted,

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